Progress Report Response Document for 2004 for the Four Mile Run Bacteria TMDL Implementation Plan

<u>Commitment</u>	<u>Progress</u>				
City of Alexandria, Department of Transportation and Environmental Services					
will rehabilitate the portion of the sewers in Four Mile Run watershed. That portion, called the Four Mile Run sewer shed, represents the most critical area of Infiltration and Inflow problem in the Alexandria portion of the Four Mile Run watershed. (Y-1)	This project is in construction. It should be completed by mid year 2005.				
will annually inspect all sanitary sewer crossings and sanitary trunk lines parallel to and in the stream corridors of the Four Mile Run watershed. Any parallel lines or crossings found to be failing will receive a high priority rating to ensure timely repair efforts. (IY-1 thru IY-10)	Sanitary sewer pipes crossing or adjacent to Four Mile Run are visually inspected two to three times per year to assure that there are no leaks. In addition, the pipes are flushed at this time.				
will maintain the sanitary sewer infrastructure on an as needed basis and by developing a GIS database of the sanitary sewer system that will aid in projecting an efficient maintenance strategy. (IY-1 thru IY-10)	This project is underway. It should be completed in 12-18 months.				
will train appropriate personnel on proper sewage disposal during sanitary sewer backups and subsequent repair work. (IY-1 thru IY-10)	Operations and maintenance crews are provided on the job training in their areas of work including sanitary sewer repairs. No backups have occurred since the regular inspection and flushing program was implemented three years ago.				
will develop an inappropriate (illicit) discharge detection program for their portion of the Four Mile Run watershed. Such a program will build upon the optical brightener monitoring previously performed throughout the watershed and will comply with the City's MS4 requirements. A plan will be developed to eliminate any discovered inappropriate discharges to the storm system. (IY-5 thru IY-10)	The City of Alexandria Department of Transportation and Environmental Services is presently conducting a mapping inventory of the storm sewer system. Any dry weather discharge of the storm sewer system will be noted at this time. Those discharges will then be followed-up with further investigation (e.g., optical brightners) to determine whether there is an illicit connection.				

will continue to explore BMP retrofit opportunities for the watershed. These efforts will included ongoing work with the US Army Corps of Engineers, US Environmental Protection Agency, Arlington County, a bi-jurisdictional citizen task force and the Northern Virginia Regional Commission to develop a feasibility study focused on the Four Mile Run flood control channel. (IY-1 thru IY-10) will continue to manage and enforce its Chesapeake Bay Act & MS4 Programs. The Department will also prepare to meet the challenges of the upcoming Potomac Tributary Strategies Program. (IY-1 thru IY-10)	The City of Alexandria is presently working with the US Army Corps of Engineers, US Environmental Protection Agency, Arlington County, a bi-jurisdictional citizen task force and the Northern Virginia Regional Commission to develop a feasibility study focused on the Four Mile Run flood control channel. One of the goals of this project will be to identify BMP retrofit opportunities in the Four Mile Run Watershed. City Council adopted amendments to the Environmental Management Ordinance on June 12, 2004. These amendments help the City strengthen regulations under the Chesapeake Bay Act. The City entered the second year of a 5-year MS4 permit cycle in August 2004. All activities are on track.
will ensure proper maintenance of the newly retrofitted regional pond on Lucky Run for proper function as a BMP. (IY-1 thru IY-10)	The newly retrofitted regional pond on Lucky Run was completed in November 2004. The City will ensure that the pond is inspected annually and any deficiencies noted will be rectified in a timely manner.
will continue its street sweeping program at its current level. (IY-1 thru IY-10)	The City of Alexandria Department of Transportation and Environmental Services, intends to continue its street sweeping program at the current level. Currently, the City utilizes the following equipment for its street sweeping program: 4 street sweepers, 1 water truck, 5 litter collection trucks (Mad Vac), 7 self contained leaf collection trucks (25 CY each per load). In addition, the City dedicates the following manpower to the street sweeping program: 18 full time employees, 8-9 seasonal employees, (October – December)
will inspect, and clean as needed, catch basin on its portion of the Four Mile Run watershed. (IY-1 thru IY-10)	The Department of Transportation and Environmental Services, inspects, and cleans catch basins throughout the City of Alexandria. Currently, the City utilizes the following equipment for its catch basin and inlet cleaning program: 1 vac truck and 1 flush truck operated by Flippo Construction (contract) and 2 flush trucks operated by the City. In addition, the following manpower is associated with the catch basin and inlet cleaning program: 6 full time employees (2 crews) are contracted with Flippo Construction and 4 full time employees (2 crews) work for the City.

will assess all stream segments in the watershed. Each stream segment will be evaluated and if restoration is warranted a work priority will be assigned. All stream segments in the Four Mile Run watershed will be given a priority that reflects the impairment and associated needs of Four Mile Run. (IY-1 thru IY-3)	The City of Alexandria Division of Environmental Quality will initiate a comprehensive stream study in the spring 2005. The methodology used for this study will be similar to that used in other localities (e.g., Fairfax and Prince William Counties). This study will provide information on the condition of all streams in the City. Those stream segments with the lowest evaluation scores in the Four Mile Run watershed will be given the highest priority for restoration efforts.
will explore opportunities through the City site plan process and municipal projects to daylight under-grounded stream segments of Four Mile Run and its tributaries. (IY-1 thru IY-10)	Under the recently adopted amendments to the Environmental Management Ordinance, the City utilizes a toolbox approach to meeting water quality requirements rather than confining itself to traditional stormwater management techniques (e.g., wet ponds and sand filter systems). Stream daylighting is one such technique in the City's toolbox that will be seriously considered when reviewing a project in the Four Mile Run watershed.
will consider stream restoration and stream bank stabilization projects when allocating funds in the Environmental Restoration Account and Alexandria Water Quality Improvement Account. (IY-1 thru IY-10)	Once the comprehensive stream study scheduled for spring 2005 is complete, the City Division of Environmental Quality will develop and prioritize a list of stream bank stabilization and restoration projects, which would draw from the Environmental Restoration Account and the Alexandria Water Quality Improvement Account.
will continue to work to include stormwater runoff reduction and reuse technologies in their Chesapeake Bay Program. (IY-1 thru IY-10)	A program to encourage "Green Building" in the City of Alexandria is being considered. A component of this program will promote stormwater runoff reduction and reuse technologies (e.g., cisterns, infiltration, etc.).
will strive to ensure that municipal projects include stormwater runoff reduction and reuse technologies where appropriate. (IY-1 thru IY-10)	A program to encourage "Green Building" in the City of Alexandria is being considered. A component of this program will promote stormwater runoff reduction and reuse technologies (e.g., cisterns, infiltration, etc.). Several City projects incorporate stormwater runoff reduction and reuse technologies. For example, a Green Roof will be retrofitted to a section of the recently relocated Health Department this spring 2005. In addition, the City's high school is being designed to include a cistern to use gray water for many of the facility operations.
will incorporate information regarding bacteria as a NPS pollutant into the general NPS brochures that are actively distributed. (IY-1 thru IY-10)	The Division of Environmental Quality is presently working with AMEC Earth and Environmental to develop a general water quality brochure that provides information on non-point source pollution issues within the City of Alexandria. Information related to fecal coliform bacteria will be included in this brochure.

will consider funding to participate in the Northern Virginia Regional Pollution- Prevention (P2) Media Strategy program. (IY-1 thru IY-10)	The City of Alexandria Division of Environmental Quality will commit \$2,500 from its general operating budget towards the Northern Virginia Regional Pollution Prevention Media Strategy Program. Because this is an unbudgeted item DEQ can only contribute a portion of the \$9,900 requested at this time. However, additional money may become available towards the end of the fiscal year (May 2005).
publish one newsletter article concerning nonpoint source pollution and bacteria every other year in the newsletter, FYI Alexandria a City publication. Such articles will be made available to civic associations for inclusion in their publications. (IY-1 thru IY-10)	The City was recently awarded grant funding for a Green Roof demonstration project to be constructed on the newly relocated Health Department building. Information regarding this grant and the benefits of green roof technology with regard to stormwater management and non point source pollution were provided to the general public in the form of a news release. As a result, an article was written in a local paper. Information on this project will also be included in the City of Alexandria Government publications of City News and TES Talk. This article will also be made available to any civic association that is interested in publishing it in their newsletter. DEQ will continue to provide articles regarding nonpoint source pollution for distribution both "in house" and to the local news media.
will include bacteria as a pollutant into general NPS outreach & education materials including presentations. (IY-1 thru IY-10)	The Division of Environmental Quality is presently working with AMEC Earth and Environmental to develop a general water quality brochure that provides general information on non-point source issues within the City of Alexandria. Information related to fecal coliform bacteria will be included in this brochure.
will continue their storm drain marking program at current levels. (IY-1 thru IY-10)	The City of Alexandria Division of Environmental Quality will continue to mark storm drains at current levels. Presently, City staff and volunteers mark storm drains during larger clean-up events (e.g., Alexandria Earth Day, Holmes Run Park Clean-up, and various other neighborhood clean-ups). Most recently, a member of the Boy Scouts, who would like to incorporate storm drain marking into his Eagle Scout badge project, approached DEQ. This individual will concentrate his efforts in the Four Mile Run Watershed.
will include information regarding bacteria as a NPS pollutant on their webpage. Where appropriate such information will include reference to this implementation plan and discussion of the City's proactive approach to the impairment. (IY-1 thru IY-10)	The Four Mile Run Bacteria TMDL Implementation Plan may be accessed from the Division of Environmental Quality 's webpage (http://alexandriava.gov/tes/eq/related_links.html).

will update their brochure "Your Dog and the Chesapeake Bay Have More In Common Than You Think" to reflect the TMDL and Implementation Strategy. This brochure will be distributed at fair & festival exhibits and at City Park kiosks as well as made available at City offices. (IY-2 thru IY-10) will provide input to the VDH signage discussion for Four Mile Run.	The Division of Environmental Quality is presently working with AMEC Earth and Environmental to update the brochure "Your Dog and the Chesapeake Bay Have More In Common Than You Think". However, until the brochure is finalized, the original version continues to be circulated. Copies of the brochure have been provided to the City's Recycling Coordinator for distribution at the many events attended by this person (Anna Collinson). The new brochure will be distributed at fairs, festivals, City Park kiosks, and City offices. The City of Alexandria Division of Environmental Quality will provide
(IY-1 thru IY-5)	input to the VDH signage discussion for Four Mile Run.
will seek opportunities to place informative signs at strategic locations in the Four Mile Run watershed. Signs could be highly detailed and educational in nature or could be simple signs reminding park goers to pick up after one's pet. (IY-1 thru IY-10)	New educational signs were created with funding from a US Fish and Wildlife grant and are to be installed in Four Mile Run Park this fall 2004. The signs are highly detailed and will provide park patrons with a "you are here" perspective in the Four Mile Run Watershed. The signs intend to educate people on watershed concepts. Additionally, several signs will be installed in Four Mile Run Park this spring 2005, and are written in English and Spanish. The message of these signs is no littering.
City of Alexandria	
will enforce their Environmental Offenses Ordinance, Title 11, Chapter 13 of the City Code which prohibits non-stormwater discharges to the storm sewer system without specific permits. (IY-1 thru IY-10)	The City of Alexandria established an Environmental Crimes Task Force in September 2002 to help enforce the Environmental Offenses Ordinance.
will continue to ensure that all buildings have access to the public sewer system. New buildings must to connect to the municipal system. (IY-1 thru IY-10)	All new construction within the City of Alexandria has access to the municipal sewer system. Those residences that utilize a septic system will be connected to the municipal system.
City of Alexandria, Department of Recreation,	Parks and Cultural Activities
will consider adding new locations for pick-up bags and receptacles within their municipal parks. Informative Signage will be considered at strategic locations in the watershed. (IY-1 thru IY-10)	The Department of Recreation, Parks, and Cultural Activities is presently reviewing locations for adding pick-up bags and receptacles. Developing a plan for possible signage at strategic locations in the Watershed.

will operate and maintain the dog park located at Fort Ward Park in accordance with the Master Plan for Dog Exercise Areas and Fenced Dog Parks. (IY-1 thru IY-10)	The Department of Recreation, Parks, and Cultural Activities is operating the Dog Park at Fort Ward Park in accordance with the Dog Master plan.
•	Parks and Cultural Activities tion and Environmental Services
will explore requesting developers to proffer the provision of pick-up bags and receptacles for pet waste disposal with informative signage on larger multi-family development projects through the site plan development process. (IY-1 thru IY-10)	Working with and exploring the possibilities of partnerships with private groups to facilitate the use of the pick-up bags at various dog park locations.
will review its enforcements tools (ordinances, etc.) to ensure that the tools are consistent with one another and with the goals of the TMDL. Presentations or other training methods will be employed to educate Police, Animal Control Officers and City staff about the TMDL water quality effort and the related enforcement tools. Efforts will also be made to reach the general population of the City regarding these tools. Such efforts may include articles published in the City newsletters, brochures, discussions with dog groups or postings on the City website. (IY-1 thru IY-10)	Enforcement tools are in use, and in constant review to assure that they are consistent with one another. Brochure to be revised and presented to groups for the education effort associated with TMDL.
Arlington County, Department of	of Public Works
will train appropriate municipal personnel on proper sewage disposal during sanitary sewer backups and subsequent repair work. (IY-1 thru IY-10)	No formal training program implemented at this time.

will continue their sanitary sewer infrastructure maintenance program at its current level of service. (IY-1 thru IY-10)	From 2004 MS4 Permit Annual Report: The I/I program consists of field inspections (including smoke and dye tests) to identify sources of inflow; comprehensive TV inspections are also conducted under this program, along with the rehabilitation and replacement of sewers. Closed circuit TV inspections are used to identify sanitary sewers in need of rehabilitation to prevent infiltration into the system. Contractor inspections have focused in the Lubber Run basin, as have linings. However, County forces have been inspecting "trouble" spots (locations that require regular flushing to prevent stoppages), and locations with stoppages. These inspections have revealed locations that needed to be lined — those locations can be anywhere in the County. County inspections have also included new developer installed sewers.
	A summary of linear feet of sewer line inspected and relined is shown in the table. Fiscal Year Feet of Sewer Inspected Feet of Sewer Relined
plans to increase the rate of replacement of sanitary sewers from 1% annually to 1.5% annually over the course to ten year IP timeframe. (IY-1 thru IY-10)	Rate of funding provided in most recent CIP; note that 1.5 % is approximately 37,84 linear feet (see table in preceding item)
will continue their storm sewer infrastructure inspection program including CCTV inspection of all storm sewer lines. Suspect connections identified during inspections will be investigated and appropriate action taken. (IY-1 thru IY-10)	From 2004 MS4 Annual Report:: Storm sewer maintenance consists of a program to comprehensively inspect and clean catch basins and grate inlets on an approximate two-year cycle, and to inspestorm sewers with TV cameras on an approximately 40-year cycle. Data for these

will inspect, and clean as needed, every catch basin in its portion of the TMDL watershed bi-annually.

(IY-1 thru IY-10)

programs for FY 2004 are included below. The maintenance program also includes repairs to damaged or failed pipes, structures, and the cleaning of blocked sewer mains. Maintenance to keep open channels clear, and removal of vegetation along the Four Mile Run flood control project is also included under this program.

..., the County's storm sewer inspection program described in Section 2.3.2 uses TV cameras to inspect storm sewer lines. The inspection tapes produced from this program are reviewed not only for maintenance assessment but also for potentially suspicious connections that could represent an illicit connection. As a result, this program provides a powerful and comprehensive dry weather screening tool that is much more effective than simple visual observations at major storm sewer outfalls. Since the program's inception in FY 2002, approximately 60 miles of the 360 mile storm sewer system have been inspected. This represents 17 percent of the entire system. In FY 2002 and 2003, the inspection focused on the Doctor's Branch watershed. In FY 2004, more than 19 miles of storm sewer were inspected in the Lubber Run watershed. A handful of potentially suspicious connections were discovered during FY 2004. Follow-up smoke testing will be performed to determine whether any of these connections represent a sanitary line.

Fiscal Year	Catch basin cleaning				
	Inspected	Cleaned	Tons of material removed		
2002	3,881	2,503	283		
2003	2,530	1,056	112		
2004	12,608	2,272	*		

Fiscal Year	Storm sewer inspection			
	Feet inspected	Tons of material removed		
2002	55,583	86		
2003	157,677	229		
2004	103,396	230*		

*Represents combined total of catch basin cleaning and storm sewe

Arlington County

Department of Public Works (now Environmental Services)

Department of Environmental Services

will inspect all sanitary sewer crossings in the stream corridors of the Four Mile Run watershed as part of the MS4 Permit dry weather inspections program. Any stream crossings found to be failing will receive a high priority rating to ensure timely repair efforts. (IY-1 thru IY-10)	TV inspections of stream crossings ongoing; no formal inspections of stream crossings from the surface implemented at this point.
will continue to explore BMP retrofit opportunities for the watershed. These efforts will include continued implementation of the County's Watershed Management Plan as well as ongoing work with the US Army Corps of Engineers, US Environmental Protection Agency, City of Alexandria, a bi-jurisdictional citizen task force and the Northern Virginia Regional Commission to develop a feasibility study focused on the Four Mile Run flood control channel. (IY-1 thru IY-10)	From 2004 MS Permit Annual Report:: The County's Watershed Management Plan identifies a number of locations as priorities for BMP retrofits and stream restoration projects, based on land use, evidence of possible water quality problems, and stream channel stability and habitat condition. Beginning in FY 2001, DES and DPW began using this document to target Capital Improvement Program (CIP) expenditures for BMP retrofits and stream restoration projects. This funding is supplemented by revenues collected through the Chesapeake Bay Preservation Ordinance Watershed Management Fund program.
	The approved FY 2005 Capital Improvement Program contains \$150,000 for BMPs and stream restoration. The projected FY 2007 and 2009 CIPs contain \$400,00 and \$900,000, respectively, for such projects. It should also be noted that the Stormwater Funding Feasibility Study discussed in Section 5 will provide recommendations for program enhancements, including BMP and stream restoration projects, and funding mechanisms to address both current needs and anticipated future requirements such as the Chesapeake Bay Tributary Strategies and TMDL programs.
will continue to work to include stormwater runoff reduction and reuse technologies in their Chesapeake Bay and Green Building programs. (IY-1 thru IY10)	This effort is ongoing with the implementation of these programs.
will continue to strive to ensure that municipal projects include stormwater runoff reduction and reuse technologies where appropriate. (IY-1 thru IY-10)	This effort is also ongoing, with a number of County facilities built, under construction or in planning that incorporate technologies like green roofs, cisterns, permeable paving, bioretention, etc.
Arlington County	
will continue enforcement of its stormwater Utilities Ordinance Section 26-45 which prohibits discharges of non-stormwater without a specific permit. (IY-1 thru IY-10)	Ongoing.

Arlington County

Department of Environmental Services

will build upon their previous MS4 Outfall monitoring program to target 24 (actually 17) suspect outfalls for follow-up monitoring in the Four Mile Run watershed. Optical brightener monitoring will be used in coordination with visual and odor inspections and grab sampling. Additionally biological monitoring data collected by volunteer teams will be analyzed in coordination with regular outfall monitoring. Any discovered inappropriate discharges will be eliminated from the storm system.

(IY-1 thru IY-10)

From 2004 MS Permit Annual Report::

For its first fiveyear permit term, Arlington County exceeded the requirements of its MS4 permit by conducting colorimeter tests at all outfalls greater than 36" in diameter (not just outfalls suspected of receiving illicit discharges), in addition to visually inspecting each outfall once per year. To date, one illicit connection has been confirmed (from a Fairfax County apartment building).

There are two key components to the County's dry weather screening program during its second permit term—outfall monitoring and storm sewer TV inspections.

The focus of the County's outfall monitoring program during its second permit term is to conduct follow-up investigation at specific outfalls where observations during the first permit term suggested the possibility of an illicit discharge, but colorimetric tests did not produce any conclusive results. The County will also focus its efforts on tracking down episodic illicit discharges reported by staff or citizens.

In FY 2004, the County conducted optical brightener monitoring (described in previous annual reports) at the 17 outfalls where screening during the first permit term suggested a potential illicit discharge. Of the 17 outfalls monitored, 13 showed negative results. One monitor (DB100) was lost due to suspected vandalism, and three (FM160S, FM250, and LR100) showed potential positive results (because of potential contamination from optical brighteners found on dothing, the optical brightener method can be prone to false positives). During the first re-testing period for these three outfalls, rainfall greater than 0.1" occurred. As a result, two outfalls (FM160S and FM250) were re-tested (the water at the third outfall, LR100, was too turbid from the preceding storm event to re-test). The two outfalls re-tested both showed negative results. DB100 and LR100 will be re-tested during FY 2005.

OUTFALL	Follow-up 2	004 - OBM sa	mples	Re-test #1			Retest #2		
	Date in	Date out	Result	Date in	Date out	Result	Date in	Date out	Result
AB110	03/22/2004	03/26/2004	Negative	-		-	-	-	-
DB100	03/22/2004	03/26/2004	Lost						
DB115	03/22/2004	03/26/2004	Negative		-	-		-	
FM160S	03/22/2004	03/26/2004	Positive	06/15/2004	06/18/2004	Negative; but after >0.1" rainfall	06/18/2004	06/21/2004	Negative
FM200	03/22/2004	03/26/2004	Negative		-	-			
FM220	03/22/2004	03/26/2004	Negative		-	-		-	
FM230	03/22/2004	03/26/2004	Negative	-		-	-	-	-
FM250	03/22/2004	03/26/2004	Positive	06/15/2004	06/18/2004	Lost; from 6/17 rainfall	06/18/2004	06/21/2004	Negative
FM390	03/22/2004	03/26/2004	Negative		-		-		
FM470	03/22/2004	03/26/2004	Negative			-	-		
FM480	03/22/2004	03/26/2004	Negative	-	-			-	-
FM520	03/22/2004	03/26/2004	Negative		-		-		
LK110	03/22/2004	03/26/2004	Negative	-	-	-	-	-	
LL105	03/22/2004	03/26/2004	Negative		-	-		-	
LR100	03/22/2004	03/26/2004	Positive	06/15/2004	06/18/2004	Lost; from 6/17 rainfall			
LR105	03/22/2004	03/26/2004	Negative	-	-			-	-
LR140	03/22/2004	03/26/2004	Negative			-			

FY2004 Outfall monitoring data.

will use the new mapping as a tool in their dry weather monitoring program required through their MS4 VPDES Permit for helping to track down any potential inappropriate discharges discovered. (IY-2 thru IY-10)	Ongoing.
will review the County's enforcement tools (ordinances, etc.) to ensure that those tools are consistent with one another and with the goals of the TMDL. Presentations or other outreach methods will be employed to educate Police, Animal Control Officers and other County staff regarding the TMDL water quality effort and the related enforcement tools. Efforts will also be made to reach the general population of Arlington County regarding these tools. Such efforts may include articles published in the "Citizen" etc., discussions with dog sponsoring groups or postings on the County website. (IY-1 thru IY-10)	No actions taken to date.
will explore requesting developers to include the provision of pick-up bags and receptacles for pet waste with informative signage on larger multi-family development projects through the site plan development process. (IY-1 thru IY-10)	No actions taken to date.
will continue to manage and enforce its Chesapeake Bay & MS4 Programs. The Department will also prepare the County to meet the challenges of the upcoming Potomac Tributary Strategies Program. (IY-1 thru IY-10)	Continued implementation ongoing, including participation on Potomac- Shenandoah Tributary Strategy team.
will continue its street sweeping program at its current level. (IY-1 thru IY-10)	From 2004 MS4 Permit Annual Report: Fiscal Street sweeping Residential lane miles swept /# of cycles
will explore opportunities to expand its current street sweeping program by increasing the coverage and frequency or by employing enhanced sweeping techniques as they become environmentally justified and economically viable. (IY-1 thru IY-10)	No actions taken to date.

will explore opportunities through the County site plan process and municipal projects to daylight under-grounded stream segments of Four Mile Run and its tributaries as appropriate. (IY-1 thru IY-10)	No actions taken to date.
will continue to encourage stormwater runoff reduction and reuse by property owners through its outreach and education programs. (IY-1 thru IY-10)	Ongoing. Stormwater runoff reduction and reuse is encouraged when talking to citizen and community groups. In addition, the Water Stewardship Program was expanded to twenty neighborhood teams this year. This program educates residents about how to reduce stormwater runoff on their properties, improve water quality, conserve water, and get involved in the community.
will include bacteria as a pollutant into general NPS outreach & education materials including presentations and Internet materials. Where appropriate such information will include reference to this implementation plan and discussion of the County's proactive approach to the impairment. (IY-1 thru IY-10)	Ongoing. Bacteria is listed as a pollutant in educational materials, presentations, and on the Internet, and sources of bacteria are also discussed. TMDL plan is also mentioned where appropriate.
will incorporate information regarding bacteria as a NPS pollutant into the general NPS brochures that are actively distributed. (IY-1 thru IY-10)	Ongoing. All brochures discussing streams and water quality encourage proper disposal of pet waste to protect water quality.
will publish one newsletter article every other year in the "Citizen," a County publication. Those articles will cover nonpoint source pollution and bacteria and will be made available to civic associations for inclusion in their publications. (IY-1 thru IY-10)	Ongoing. Articles on nonpoint source pollution and protecting water quality are periodically included in "The Citizen." In addition, articles about nonpoint source pollution are distributed to the civic associations for inclusion in their newsletters as well.
will continue their storm drain marking program at current levels. (IY-1 thru IY-10	From FY 2004 MS4 Permit Annual Report: The storm drain marking program continued in 2004, with the purchase of 1,000 additional storm drain markers. To date, approximately 1,500 storm drains have been marked, and 6,000 educational door hangers in English and Spanish were distributed. This program reminds people that dumping in storm drains is illegal, and also gives the name of their local watershed.
will help fund the Northern Virginia Regional Pollution-Prevention (P2) Media Strategy program. (IY-1 thru IY-10)	Ongoing. A coalition of Northern Virginia localities will jointly fund a radio campaign on preventing stormwater pollution in spring, 2005. Arlington County will contribute a share based on population towards this campaign. The radio ad addresses nonpoint source pollution from fertilizer, pet waste, and motor oil.
will continue to develop outreach materials directed at proper pet waste disposal, such as the movie theater and Metro station ads, as part of its overall outreach and education programs. (IY-1 thru IY-10)	Ongoing. The radio ad campaign mentioned above will reuse an ad created by the Texas Commission on Environmental Quality (with their permission). This ad will be slightly modified for the Northern Virginia market.

will also support the Northern Virginia Regional P2 Strategy, which includes an emphasis on proper pet waste disposal (see 'General Education and Outreach' section). (IY-1 thru IY-10)	Ongoing. A coalition of Northern Virginia localities will jointly fund a radio campaign on preventing stormwater pollution in spring, 2005. Arlington County has assisted in coordinating this effort, and garnering support from other localities in Northern Virginia. The radio ad addresses nonpoint source pollution from fertilizer, pet waste, and motor oil.
Arlington County Environn	mental Health
will attempt to verify the locations of all septic systems in the watershed (approximately 4). However, because of the age of these systems and the absence of records prior to the 1970s, absolute verification of system locations is difficult. Staff will use the best available information to locate these systems in the field. For those systems located, Environmental Health will place these systems on a pump-out schedule. (IY-1)	
Arlington County Department of Parks, Recrea	ation, and Community Resources
will continue to operate and maintain the six dog parks in the TMDL watershed, as dog parks are considered an asset in terms of the TMDL and water quality in general. (Y-1 thru IY-10)	Six dog parks remain in operation.
will add informative signs at strategic locations both within the dog parks and in the municipal parks. Additional locations for placement of pick-up bags and receptacles beyond dog parks will be considered. (IY-1 thru IY-10)	Have posted dozens of signs and although PRCR tries not to overdo signage, will continue to place signs in appropriate spots reminding people to be considerate of others and pick up after their dogs. As for placing pick-up bag locations in non Community Canine Areas (CCA), PRCR has considered, but is not ready to make that commitment at this point. Currently PRCR does not provide bags in our CCAs, but does provide a box for people to use to store their recycled bags from home.
in coordination with the Department of Environmental Services (DES), VADEQ, VADCR, and NVRC will investigate funding sources to retrofit existing dog parks with BMPs. (IY-1 thru IY-10)	No action taken to date.

will consider forming a committee consisting of DPRCR and DES staff and various stakeholder groups such as the Parks & Recreation Commission, the Environment & Energy Conservation Commission and Arlington Dogs, for the purpose of evaluating and improving current dog park standards in light of the bacteria TMDL. Items for consideration will include installation of best management practices, and the development of guidelines for education and outreach materials for park users as well as dog owners County-wide, and stream access for dogs consistent with County Pet Leash and Waste Pickup Ordinances as well as stream and riparian management programs. (IY-2 thru IY-4)	No action taken to date.
will explore a master plan approach to dog park siting to better ensure a sufficient number of parks in Arlington County that are geographically distributed within the County. (IY-1 thru IY-2) will continue to manage the Sparrow pond to ensure its effectiveness as a BMP. (IY-1 thru IY-10)	PRCR plans to evaluate updating CCA guidelines, which include siting guidelines, and relevant Operating Memorandum. So far, PRCR has not had the staff time to take this on as the department is still wrapping up a nearly year long process to relocate one of our existing CCA's. PRCR is also committed to conduct reviews of each of the County's CCAs, but the timing of this effort has not been set. Ongoing.
Arlington County Department of Environmental Services, Department of Public Works (now Environmental Services) and Department of Parks, Recreation and Community Resources Plan to retrofit the Ballston Beaver Pond for enhanced water quality treatment. (IY-1 thru IY-8) From FY 2004 MS4 Permit Annual Report: DPW, DPRCR, and DES have begun the process of studying the Beaver Pond to	
	evaluate options to restore its original function as well as provide important water quality and habitat benefits. This process began in the fall of 2000, when DPW drained the pond to survey its bottom to determine the pond's remaining capacity. The survey data provide essential baseline information for a comprehensive study and re-design of the pond. A consultant will likely be hired to design this project, with the scope of work developed with input from the community.

will continue to implement the County's adopted Watershed Management Plan, which provides a blueprint for long-term stream management and restoration projects. Projects implemented by the County will emphasize stream corridor restoration that focuses on re-establishing 'dynamic equilibrium' between streams and watersheds so that sediment transport is in balance and water quality and instream habitat are improved. (IY-1 thru IY-10)		
Arlington County Office of	of Support Services	
will retrofit the municipal Trades Center with BMPs. (IY-1 thru IY-3)	From FY 2004 MS4 Permit Annual Report: Water quality BMPs will be installed at the Arlington County Trades Center as part of the redesign of this facility. The Trades Center houses a number of municipal operations, including most of the County's truck and school bus fleets, a police impound lot, a fire fighting training facility, a concrete recycling facility, a refueling station, and a vehicle maintenance and repair shop. Stormwater quality data collected during the first MS4 Permit term at the main storm sewer outfall draining this facility showed higher concentrations of petroleum products and metals than at the other three outfalls monitored. It is anticipated that this retrofit will significantly reduce stormwater pollutant loadings from this facility. As noted in Section 2.12.2, the County plans to resume operation of this wet weather monitoring station to help evaluate the effectiveness of these BMPs.	
Arlington County		
_	Department of Environmental Services and Department of Parks Recreation and Community Resources	
will continue to work with the sponsoring dog groups at the Glen Carlyn and Shirlington dog parks to restore eroded streambanks at these two locations. (IY thru IY-5)	GlenCarlyn: In July/August 2004, stabilized approximately 150 linear feet of eroding streambank adjacent to this dog Pprk. The stabilization techniques included a rip-rap revetment along with streambank re-grading and bioengineering. Staff, with assistance from the Northem Virginia Soil and Water Conservation District, surveyed and analyzed the stream reach analysis to develop the project design. Shirlington Park CCA: This work will be scheduled as soon as the quarry that can supply the imbricated rip-rap is able to supply the rock.	

will seek opportunities to place informative signs at strategic locations in the Four Run watershed. Signs could be highly detailed and educational in nature or cousimple signs reminding park goers to pick up after one's pet. (IY-1 thru IY-10)			
Department of Parks, R	of Environmental Services; Recreation and Community Resources at of Environmental Health		
will provide input to the VDH signage discussion for Four Mile Run. (IY-1 thru IY-5)	No action taken to date.		
	Arlington County Arlingtonians for a Clean Environment (a non-governmental agency) Department of Environmental Services		
will continue the Stream Stewards Program and will incorporate bacteria as a N pollutant. (IY-1 thru IY-10)	IPS Ongoing. Several training sessions for stream stewards were conducted in FY04.		
Arlington County Arlingtonians for a Clean E	Arlington County Arlingtonians for a Clean Environment (a non-governmental agency)		
in coordination with Arlington County Department of Environmental Services, Ci Fall Church Department of Environmental Services, and City of Alexandria Transportation and Environmental Services, will continue the Watershed Stewardship Program for IY-1 and seek funding for future years. (IY-1 thru IY-10)	Ongoing. The Water Stewardship Program was expanded in FY04, with a goal of creating twenty new teams by the end of December, 2004. Three training sessions were conducted for team leaders and the management team is on track to have twenty teams complete the program by the end of 2004. Three grant applications for additional funding were submitted for 2005 to continue to expand the program and recruit more team leaders. The next training is scheduled for February 13 th , 2005.		

will publish one newsletter article every year concerning nonpoint source pollution and bacteria in The Arlington Environment. (IY-1 thru IY-10)	Ongoing. Articles on nonpoint source pollution are included in The Arlington Environment on a regular basis.
in coordination with Arlington County and the City of Alexandria and the City of Falls Church will install 3 sets of educational signs in the watershed. (IY-1 thru IY-3)	Ongoing. With grant funding received in 2003, four new versions of watershed signs were installed in Arlington, Alexandria, and Falls Church parks. These signs include a watershed map, a history of the watershed, and recommendations for what people can do to protect water quality.
Arlington County Arlington Dogs (a ne	on-governmental agency)
Annigion bogs (and	on-governmental agency)
in coordination with Shirlington Dogs, Banneker Dogs, Douglas Dogs, Glen Carlyn Dogs, Fair Dogs, Tower Dogs, and Arlington County, Departments of Parks Recreation and Community Resources and Environmental Services will work to promote responsible dog owner habits regarding bacteria both within the dog parks and beyond. Efforts may include articles in newsletters, information posted at dogs parks, presentations to civic associations, etc. (IY-1 thru IY-10)	PRCR has been doing this informally and will continue to do so. PRCR Park Rangers will play a large role in this since they are out mixing with the public all the time. PRCR also has several publications that provide the opportunity to make this point in writing and PRCR will work this spring to do request space for an article.
Fairfax County Wastewater C	Collection Division
will inspect each sanitary sewer line and manhole within the Fairfax County portion of the watershed. Portable personal cameras may be employed for this effort. Such coverage includes all sanitary sewer stream crossings and sanitary trunk lines parallel to and in the stream corridors of the Four Mile Run watershed. Any parallel lines to stream channels or stream crossings found to be failing will receive a high priority rating to ensure timely repair efforts. (IY-1 thru IY-10)	All 767 Fairfax County sanitary sewer line segments in the FMR watershed have been visually inspected since September 2003. These inspections in turn created some 423 work orders for rodding or pressure cleaning. They will continue to be inspected and/or cleaned on maintenance schedules. Additionally, 177 sewer lines were televised in the FMR watershed since September 2003. All stream crossings have been physically inspected by agency staff. Over 7663 feet of sewer has been rehabilitated in the FMR watershed using the CIPP process, and some 39 point repairs have been performed. Response by Tom Russell, WCD.
will train appropriate personnel on proper sewage disposal during sanitary sewer backups and subsequent repair work. (IY-1 thru IY-10)	All field staff has been trained on proper sewage disposal during sanitary sewer backups. Additionally all contractors are versed in proper disposal during rehabilitation of sewer lines.

Fairfax County		
will continue enforcement of county codes, sections 105 and 106 which prohibit discharges of non-stormwater without a separate VPDES permit. (IY-1 thru IY-10)	The Fire and Rescue Department's Hazardous Materials and Investigative Services Section aggressively enforces County Code Chapters 105 and 106 and has issued criminal citations during the investigations of Hazardous Materials Incidents. Incidents reported in 2003, which had the potential to discharge hazardous materials into storm drains or surface water, included: 32 improper disposals, 16 pipeline incidents, 39 various types of product release and 191 petroleum releases.	
will continue their volunteer storm drain marking program at current levels. (IY-1 thru IY-10)	NVSWCD did not have any requests for storm drain stenciling in the past year in the Fairfax County portion of the FMR watershed. Both Arlington County and the City of Alexandria do have an active program for marking storm drains in their jurisdictions.	
Fairfax County Stormwater Planning Division		
will combine and coordinate all in stream monitoring (MS4, Health Dept. bacteria, and biological monitoring). The program will have a focus on the Four Mile Run watershed and the strategies described in the Implementation Plan. The monitoring program will incorporate optical brightener monitoring, odor and visual inspections, biological monitoring and grab sampling. Any discovered inappropriate discharges will be eliminated from the storm system. (IY-1 thru IY-10)	Currently, Fairfax County is developing a Comprehensive Monitoring Program in which all monitoring will be coordinated under one program. The program will incorporate odor and visual inspections, biological monitoring (both fish and benthic macroinvertebrates), chemical parameters, bacteriological monitoring using grab samples for fecal coliform and e. coli, as well as volunteer monitoring data from NVSWCD and ANS. Optical brighteners have been deployed in the County, but are not currently part of the monitoring program. The Comprehensive Monitoring Program will be used to fulfill the biological monitoring requirement in the VPDES permit for Fairfax County.	

In July 2003, DPWES-SWPD took over the responsibilities of the Water Quality Monitoring Program that the Fairfax County Health Department had maintained for 20 years. Data from 1986-2002 can be found on the Health Department website at http://www.fairfaxcounty.gov/service/hd/strannualrpt.htm/#data. Data collected from July 2003 to December 2004 will be provided in the Comprehensive Monitoring preliminary report which should be completed in spring 2005, as well as in the 2004 VPDES report. DWPES-SWPD is in the process of creating a webpage to inform the general public of the results of bacteriological monitoring throughout the County as well as to provide general tips on how each individual can reduce NPS pollution.

will review its enforcements tools (ordinances, etc.) to ensure that the tools are consistent with one another and with the goals of the TMDL. Presentations or other training methods will be employed to educate Police, Animal Control Officers and park staff the TMDL water quality effort and the related enforcement tools. Efforts wi also be made to reach the general population of Fairfax County regarding these tools. Such efforts may include articles published in the County newsletters, etc., discussions with dog sponsoring groups or postings on the County website. (Y-1 thru IY-10)	There are a number of ordinances and public outreach programs on going in Fairfax County that promote the reduction of NPS pollution from the FMR watershed. The development of the Four Mile Run Watershed Management Plan in 2006 will address many problems within the watershed with a focus on restoring the health of receiving water and its ecological systems. Additionally, Fairfax County has completed its perennial stream identification process mandated by the amendments to the Chesapeake Bay Preservation Ordinance. The Ordinance mandates a 100 foot buffer along all perennial streams in the County. This 100 foot buffer will filter out many pollutants in stormwater runoff, such as N and P, before they reach waterways. Outreach programs such as the Regional Pollution Prevention Outreach Strategy, the Coastal Program Pollution Prevention Media Strategy, and many others all work to educate residents on how each individual can help reduce the amount of pollutants entering waterways.
will strive to ensure that municipal projects include stormwater runoff reduction and reuse technologies where appropriate. (IY-1 thru IY-10)	Currently, there is an effort by DPWES to amend the PFM to include LID technology such as green roofs, rain barrels, rain gardens, and more. Including these tools in the PFM will allow greater implementation of new technology throughout the County. Furthermore, developers of rezoned parcels are encouraged to retrofit their facilities to implement runoff and reuse technologies.
will head an internal work group to examine the incorporation of Green Roof technologies on a programmatic scale. (IY-1 thru IY-3)	During its meeting on September 29, 2003, the Board of Supervisors requested that staff prepare an evaluation of green roof technology and report on whether it can be employed cost effectively in Fairfax County. The Department of Public Works and Environmental Services (DPWES) was designated the lead agency to formulate a multi-agency work group to explore this issue and develop recommendations to be presented to the Board for consideration. The general consensus of the group is that green roofs can play an integral role as part of the larger "low impact development" (LID) suite of measures designed to control stormwater quantity and quality closer to the source. The overall benefits are that green roofs can help to reduce energy usage in buildings, serve as an aesthetic amenity, and mitigate the negative impacts of impervious area on the health of receiving streams. The general recommendation is that green roofs should be examined in the broader context of "green buildings" which is becoming a nation-wide trend as part of the Leadership in Energy & Environmental Design (LEED) certification program, which has already been adopted by Arlington County. The broader application of green roofs County-wide may involve adoption into the County Code and/or Comprehensive Plan to encourage use of green roofs by inclustry/developers where feasible. Unless otherwise directed, staff will develop specific recommendations of changes to the County Code and/or Comprehensive Plan to encourage the use of green roofs as part of an overall LEED certification process and as a stand alone measure for stormwater management.

Fairfax County	(BLL)
Stormwater Management Division	
will develop a watershed plan for the Four Mile Run watershed. Included in those discussions will be the use of stormwater runoff reduction and reuse technologies in the watershed. (Y-1 thru IY-4)	Currently, over 60 percent of Fairfax County is in the process of developing Watershed Management Plans. The watershed plans are expected to provide an assessment of management needs and prioritize solutions within each watershed. The overall goal for the development of watershed management plans is to provide a consistent basis for the evaluation and implementation of solutions for protecting and restoring the receiving water, the ecological systems and other natural resourc of the County. The Four Mile Run plan is slated to start in July 2005, with a target completion date of December 2006. This item will be addressed during the planning process.
Fairfax County	
Fairfay Carr	nt : Davis A : thavit :
Fairfax Cour	nty Park Authority
will provide receptacles in the Four Mile Run watershed park locations. Informative signs will be added at appropriate locations. (IY-1 thru IY-10)	The Fairfax County Park Authority has placed trash receptacles in each of our par
will provide receptacles in the Four Mile Run watershed park locations. Informative signs will be added at appropriate locations. (IY-1 thru IY-10)	The Fairfax County Park Authority has placed trash receptacles in each of our par in this watershed. Most of these parks also now have park rules signs emphasizin pet waste clean up; this effort will be completed in March 2005. Response by
will provide receptacles in the Four Mile Run watershed park locations. Informative signs will be added at appropriate locations. (IY-1 thru IY-10) Fairfax County	The Fairfax County Park Authority has placed trash receptacles in each of our par in this watershed. Most of these parks also now have park rules signs emphasizin pet waste clean up; this effort will be completed in March 2005. Response by Heather Mechior, PA.
will provide receptacles in the Four Mile Run watershed park locations. Informative signs will be added at appropriate locations. (IY-1 thru IY-10) Fairfax County	The Fairfax County Park Authority has placed trash receptacles in each of our par in this watershed. Most of these parks also now have park rules signs emphasizin pet waste clean up; this effort will be completed in March 2005. Response by

will continue to manage and enforce its Chesapeake Bay & MS4 Programs and prepare to meet the challenges of the upcoming Potomac Tributary Strategies Program. (IY-1 thru IY-10)	Fairfax County has been involved in improving the environment and water quality by working with other agencies and organizations. The following is a list of activities and collective efforts in support of the mission of effective stormwater control: define a strategic plan for comprehensive stormwater management, develop countywide watershed protection and restoration strategy develop watershed management plans for major watersheds and subwatersheds expand public outreach and environmental education programs expand public outreach and environmental education programs implement water quality and quantity control practices, encourage and implement environmentally sensitive projects,
	 conduct inspection and maintenance programs for stormwater control systems and structures to ensure their effectiveness, implement stormwater control retrofits, share resources and information for the purposes of educating the citizenry and developing strategies to promote good water quality improvement practices, conduct stream monitoring and evaluation programs, provide environmental analysis on proposed land use changes and development, including the effects on nearby streams and water quality, provide other agencies and private consultants advice regarding the adequacy of erosion and sediment controls and stormwater management techniques on development sites, provide technical advice on stream stabilization and restoration techniques, screen storm system outfalls for detection and removal of illicit discharges, and provide technical support to citizens and developers
will form a working group consisting of staff and watershed stakeholders to develop a watershed management plan for their portion of the Four Mile Run watershed. Included in that work will be consideration and siting of possible regional BMPs. (IY-1 thru IY-4)	Currently, over 60 percent of Fairfax County is in the process of developing Watershed Management Plans. The watershed plans are expected to provide an assessment of management needs and prioritize solutions within each watershed. The overall goal for the development of watershed management plans is to provide a consistent basis for the evaluation and implementation of solutions for protecting and restoring the receiving water, the ecological systems and other natural resources of the County. The Four Mile Run plan is slated to start in July 2005, with a target completion date of December 2006. This item will be addressed during the planning process.

will form a working group consisting of staff and watershed stakeholders to develop a watershed management plan for their portion of the Four Mile Run watershed. Various BMPs including street sweeping will be considered for implementation for retrofitting uncontrolled areas. (IY-1 thru IY-4)	Currently, over 60 percent of Fairfax County is in the process of developing Watershed Management Plans. The watershed plans are expected to provide an assessment of management needs and prioritize solutions within each watershed. The overall goal for the development of watershed management plans is to provide a consistent basis for the evaluation and implementation of solutions for protecting and restoring the receiving water, the ecological systems and other natural resources of the County. The Four Mile Run plan is slated to start in July 2005, with a target completion date of December 2006. This item will be addressed during the planning process.
will routinely inspect, and clean as needed, all catch basins directly leading to the County storm sewer network at least once every five years or as problems are reported. (Y-1 thru IY-10)	The catch basins of FMR were inspected by Maintenance and Stormwater Management (MSM) in 2002/2003. They are scheduled to be inspected again in 2007/2008.
will form a working group consisting of staff and watershed stakeholders to develop a watershed management plan for their portion of the Four Mile Run watershed. Included in that work will be consideration of stream segment restoration needs in the Four Mile Run watershed. (IY-1 thru IY-4)	Currently, over 60 percent of Fairfax County is in the process of developing Watershed Management Plans. The watershed plans are expected to provide an assessment of management needs and prioritize solutions within each watershed. The overall goal for the development of watershed management plans is to provide a consistent basis for the evaluation and implementation of solutions for protecting and restoring the receiving water, the ecological systems and other natural resources of the County. The Four Mile Run plan is slated to start in July 2005, with a target completion date of December 2006. This item will be addressed during the planning process.
will explore opportunities through the County Watershed Planning process to daylight existing under-grounded stream segments of Four Mile Run and its tributaries. (IY-1 thru IY-4)	Currently, over 60 percent of Fairfax County is in the process of developing Watershed Management Plans. The watershed plans are expected to provide an assessment of management needs and prioritize solutions within each watershed. The overall goal for the development of watershed management plans is to provide a consistent basis for the evaluation and implementation of solutions for protecting and restoring the receiving water, the ecological systems and other natural resources of the County. The Four Mile Run plan is slated to start in July 2005, with a target completion date of December 2006. This item will be addressed during the planning process.

will work to include appropriate Green Roof technologies as one of several tools being used in implementing LID for new and existing developments. (IY-1 thru IY-10)	During its meeting on September 29, 2003, the Board of Supervisors requested that staff prepare an evaluation of green roof technology and report on whether it can be employed cost effectively in Fairfax County. The Department of Public Works and Environmental Services (DPWES) was designated the lead agency to formulate a multi-agency work group to explore this issue and develop recommendations to be presented to the Board for consideration The general consensus of the group is that green roofs can play an integral role as part of the larger "low impact development" (LID) suite of measures designed to control stormwater quantity and quality closer to the source. The overall benefits are that green roofs can help to reduce energy usage in buildings, serve as an aesthetic amenity, and mitigate the negative impacts of impervious area on the health of receiving streams. The general recommendation is that green roofs should be examined in the broader context of "green buildings" which is becoming a nation-wide trend as part of the Leadership in Energy & Environmental Design (LEED) certification program, which has already been adopted by Arlington County. The broader application of green roofs County-wide may involve adoption into the County Code and/or Comprehensive Plan to encourage use of green roofs by industry/developers where feasible. Unless otherwise directed, staff will develop specific recommendations of changes to the County Code and/or Comprehensive Plan to encourage the use of green roofs as part of an overall LEED certification process and as a stand alone measure for stormwater management.
is evaluating the possibility of consolidating all County stormwater management requirements in a document separate from the Fairfax County Public Facilities Manual. This document will include LID technologies. (IY-1 thru IY-4)	Currently, there is an effort by DPWES to amend the PFM to include LID technology such as green roofs, rain barrels, rain gardens, and more. Including these tools in the PFM will allow greater implementation of new technology throughout the County. A stand-alone document consolidating all County stormwater management requirements may still be developed in the future, but incorporation of the requirements in the PFM will insure their implementation.
will work to include stormwater runoff reduction and reuse in their stormwater management Programs. (IY-1 thru IY-10)	Currently, there is an effort by DPWES to amend the PFM to include LID technology such as green roofs, rain barrels, rain gardens, and more. Including these tools in the PFM will allow greater implementation of new technology throughout the County. Additionally, during the development of the FMR Watershed Management Plan areas in the watershed will be identified for retrofitting with new technology to help reduce excess stormwater runoff. Furthermore, developers of rezoned parcels are encouraged to retrofit their facilities to implement runoff and reuse technologies.

will publish information regarding bacteria as a NPS pollutant for the general public through various means including the County's Web Site. (IY-1	In July 2003, DPWES-SWPD took over the responsibilities of the Water Quality Monitoring Program that the Fairfax County Health Department had maintained for
thru IY-10)	20 years. Data from 1986-2002 can be found on the Health Department website
	http://www.fairfaxcounty.gov/service/hd/strannualrpt.htm/#data. Data collected for
	July 2003 to December 2004 will be provided in the Comprehensive Monitoring
	preliminary report which should be completed in spring 2005, as well as in the 20
	VPDES report. DWPES-SWPD is in the process of creating a webpage to inform
	the general public of the results of bacteriological monitoring throughout the Cour
will include be stain as a substantiate managed NDO entres als 0 advection materials	as well as to provide general tips on how each individual can reduce NPS pollution
will include bacteria as a pollutant into general NPS outreach & education materials	FC SWPD has an extensive outreach program in which general tips on how each
including presentations. (IY-1 thru IY-10)	individual can reduce NPS is provided. This is done through posters, pamphlets and demonstrations with the NPS pollution model. Additionally, our staff has wor
(11-14 011-10)	in conjunction with NVRC to sponsor a Boyscout Troop project installing storm di
	markers in the FMR watershed. These vinyl markers are used to remind resider
	that storm drains connect directly with local streams and not the sanitary sewer
	system. In addition, the markers discourage dumping of hazardous materials an
	trash in catch basins. The vinyl labels are affixed to storm drain catch basins usin
	an adhesive and last over ten years – much longer than painted messages.
will collaborate on the implementation of the Northern Virginia Regional Pollution-	As of November 2004, Fairfax County has committed \$75,000 to participate in the
Prevention (P2) Media Strategy program. (IY-1	Northern Virginia Regional Pollution-Prevention Media Strategy program. The
thru IY-10)	program will kick off in late winter 2004 or early spring 2005.
will include information regarding bacteria as a NPS pollutant on their webpage.	In July 2003, DPWES-SWPD took over the responsibilities of the Water Quality
Where appropriate such information will include reference to this implementation plan	Monitoring Program that the Fairfax County Health Department had maintained to
and discussion of the County's proactive approach to the impairment.	20 years. Data from 1986-2002 can be found on the Health Department website
(IY-1 thru IY-10)	http://www.fairfaxcounty.gov/service/hd/strannualrpt.htm/#data. Data collected fi
	July 2003 to December 2004 will be provided in the Comprehensive Monitoring
	preliminary report which should be completed in spring 2005, as well as in the 20
	VPDES report. DWPES-SWPD is in the process of creating a webpage to inform
	the general public of the results of bacteriological monitoring throughout the Cour
will provide input to the VDL aignore discussion for Four Mile Direct	as well as to provide general tips on how each individual can reduce NPS pollution
will provide input to the VDH signage discussion for Four Mile Run. (Y-1 thru IY-5)	Fairfax County has participated in meetings with the Virginia Department of Healt concerning signage for FMR, and is available for future meeting regarding this
(11-1 11111111-5)	subject.
	JUNICU.
City of Follo Church	
City of Falls Church	
Department of Er	nvironmental Services

will inspect all sanitary sewer crossings and sanitary trunk lines parallel to and in the stream corridors of the Four Mile Run watershed. Any parallel lines to stream channels or stream crossings found to be failing will receive a high priority rating to ensure timely repair efforts. (IY-1 thru IY-10)	This work is ongoing throughout the City's sewer system. The current schedule calls for some of the work in the Four Mile Run watershed to take place in 2006-2007.
will begin a three-year project to evaluate and rehabilitate a priority sewer basin within the City limits. (IY-7 thru IY-10)	This task remains on track for the specified time frame.
will maintain the sanitary sewer infrastructure by regular inspection and cleaning; spot repairs of failed sections of sewer line. (In addition to 30-year program.) (IY-1 thru IY-10)	Flushing is performed daily; the entire system is completed twice annually, with approximately 50,000 feet of pipe cleaned per month. Spot repairs are done, as needed. A point repair was made at the intersection of Routes 7 and 29 in July 2004.
will train appropriate personnel on proper sewage disposal during sanitary sewer backups and subsequent repair work. (IY-1 thru IY-10)	All four employees who perform this work receive annual training per Fairfax County Public Works procedures. The last training was done in June 2004.
will completely evaluate and rehabilitate the sanitary sewer infrastructure within its corporate limits by year 2034.	This program is underway as of 2003.
will develop an inappropriate (illicit) discharge program for their portion of the Four Mile Run watershed. This new program will build upon the optical brightener monitoring previously performed throughout the watershed. Any discovered inappropriate discharges will be eliminated from the storm system. (IY-4)	By August 2006, the City plans to develop and implement a pilot program to evaluate the effort required to implement a City-wide program for detection of illicit discharges. Some progress has already been made in creating awareness and outreach mechanisms to provide information to citizens on proper disposal of household hazardous waste.
will explore requesting developers to proffer the provision of pick-up bags and receptacles for pet waste with informative signage on larger multi-family development projects through the site plan development process. (IY-1 thru IY-10)	Such proffers have yet to be formally adopted. No large multi-family developments have yet been proposed for the Four Mile Run watershed within the City of Falls Church.
will review its enforcements tools (ordinances, etc.) to ensure that the tools are consistent with one another and with the goals of the TMDL. Presentations or other training methods will be employed to educate police and park staff about the TMDL water quality effort and the related enforcement tools. Efforts will also be made to reach the general population of the City regarding these tools. Such efforts may include articles published in City newsletters, discussions with dog sponsoring groups and/or postings on the City website. (IY-1 thru IY-10)	Staff will review and schedule training within the next two years. This task requires coordination with police and park staff. The general population has been reached through information regarding pet waste disposal included in doorhangers, newsletters, and postings on the City's website and cable access channel.

will continue to manage and enforce its Chesapeake Bay & MS4 Programs. The Department will also prepare to meet the challenges of the upcoming Potomac Tributary Strategies Program.	The City of Falls Church is currently complying with the requirements of the Chesapeake Bay and MS4 programs.
plans to increase the frequency and effectiveness of its current street sweeping program. (IY-1 thru IY-10)	A new street sweeping contract is in place as of July 2004 that provides for increased frequency and effectiveness. Except during vacuum leaf collection season (Oct. 15 – Dec. 15), all commercial areas are swept twice monthly, and all residential areas and municipal parking areas are swept once per month, using regenerative air sweepers.
will inspect, and clean as needed, every catch basins in its portion of the Four Mile Run watershed four times annually. The City will seek opportunities to increase the frequency of inspection and cleaning. (IY-1 thru IY-10)	Catch basins are cleaned three times per year. DES Operations staff is proposing the purchase of a new Vac-Con flusher truck (\$225,000), as well as two dedicated full-time employees, for the City's FY 06 budget.
will, where appropriate and directed by the City Manager/City Council, explore opportunities through the City site plan process and municipal projects to daylight outfalls and underground stream segments of Four Mile Run and its tributaries. (IY-1 thru IY-10)	The City is currently exploring opportunities to daylight storm pipes located in public land.
will work to include stormwater runoff reduction and reuse technologies in their Chesapeake Bay Program. (IY-1 thru IY-10)	This is currently being done through the Chesapeake Bay review and approval of new development projects.
will strive to ensure that municipal project include stormwater runoff reduction and reuse technologies where appropriate. (IY-1 thru IY-10)	This is being done where practicable. A plan is being developed to incorporate LID and runoff reduction measures on a City Hall parking lot improvement project that includes rain gardens, grass pave material, and a stormceptor. Also, five 4,000-gallon cistems have been ordered for installation at the City's property yard, and one cistem has been ordered for installation at City Hall.
will continue the Stream Stewards Program and will incorporate bacteria as a NPS pollutant into general NPS outreach and education materials, including presentations. (IY-1 thru IY-10)	The City has purchased an Enviroscape model, which was utilized by Stream Stewards in Fall2004 presentations (six classroom demonstrations and two public events). Fecal bacteria was one of the pollutants highlighted in these presentations. Also in Fall 2004, three neighborhoods participated in the Livable Neighborhood Water Stewardship Program, which included discussion of proper pet waste disposal.
will incorporate information regarding bacteria as a NPS pollutant into the general NPS brochures that will be distributed via direct mail to all City residents. (IY-1 thru IY-10)	City staff is in the process of developing a brochure on NPS pollution for a targeted mailing date of April 2005. It will include information about bacteria as a NPS pollutant.

will publish articles regarding bacteria as a NPS pollutant in the FOCUS section of the Falls Church News-Press on a quarterly basis. In addition, similar articles will be published bi-annually in The Falls Church Environment newsletter. Such articles will be made available to civic associations for inclusion in their publications. (IY-1 thru IY-10)	An article entitled "Does Your Pet Add Pollutants to the Chesapeake Bay?" appeared in the November 2004 FOCUS Weekly, in the Fall 2004 Falls Church Environment newsletter (hand-delivered to 3500 households), and the Senior Times and League of Women Voters newsletters.
will complete their storm drain marking program in 2004, resulting in the application of markers next to every storm drain in the City portion of the Four Mile Run watershed. (IY-1)	Approximately 200 storm drain markers have been applied next to storm drains in the Falls Church City portion of the Four Mile Run watershed. An additional 50 markers have been ordered to complete the goal of 100% by April 2005.
will include information regarding bacteria as a NPS pollutant on their webpage. Where appropriate, such information will include reference to this implementation plan and discussion of the City's proactive approach to the impairment. (IY-1 thru IY-10)	The City's website is currently under revision. Although the existing website contains information regarding the City's "pooper scooper" law, a new section is planned that will include information regarding <i>fecal coliform</i> as a NPS pollutant and reference to the City's involvement in and approach to the TMDL plan. This new section is planned for completion by April 2005.
will include information regarding bacteria as a NPS pollutant through a scrolling text message on the City's public access cable channel. (IY-1 thru IY-10)	A PowerPoint message has been running on the City's public access cable channel since July 2004 regarding tips for watershed protection. One of the slides encourages viewers to pick up after their pets. A follow-up slide will be added that provides information regarding <i>fecal coliform</i> as a NPS pollutant.
will include information regarding bacteria as a NPS pollutant in the Operation EarthWatch and Ecology Club programs that target elementary school students. (IY-1 thru IY-10)	Students participating in the Operation Earth Watch and Ecology Club programs received information in Fall 2004 regarding bacteria as a NPS pollutant, in conjunction with Enviroscape demonstrations and litter pickups.
will include information regarding bacteria as a NPS pollutant in the bi-annual Citywide cleanups. (IY-1 thru IY-10)	Over 100 participants in the Fall 2004 City-wide cleanup attended a presentation that provided information regarding bacteria as a NPTS pollutant.
will seek funding to participate in the Northern Virginia Regional Pollution-Prevention (P2) Media Strategy program. (IY-1 thru IY-10)	Funding has been approved for Falls Church City participation in the Northern Virginia Regional P2 Media Strategy program.
will develop a brochure "Your Dog and the Chesapeake Bay," which will include information about the TMDL and Implementation Strategy. This brochure will be distributed to dog owners through a wide range of channels. (IY-2 thru IY-10)	DES staff has initiated production of this brochure and has met with staff from the Treasurer's Office who issue dog licenses to arrange for that office to distribute the brochure. The brochure will also be placed in brochure displays at the City Hall and Mary Riley Styles Public Library, and distributed through dog obedience classes sponsored by the Recreation and Parks Department.
will seek opportunities to place informative signs at strategic locations in the Four Mile Run watershed. Signs could be highly detailed and educational in nature or could be simple signs reminding park goers to pick up after one's pet. (IY-1 thru IY-10)	Informative signs regarding pick-up after pets have been placed at all parks within the Falls Church City portion of the Four Mile Run watershed.

will provide input to the VDH signage discussion for Four Mile Run. (IY-1 thru IY-5)	No action has been taken at this time.	
City of Falls Church		
will continue enforcement of Solid Waste Ordinance Section 13-7(a), which prohibits non-stormwater discharges into any streams or drainage areas in the city. (IY-1 thru IY-10)	Staff has continued to enforce the Solid Waste Ordinance, which prohibits solid or hazardous waste from entering streams or drainage areas. In addition, efforts are being made to re-direct residential sump pump drainage away from street gutters.	
City of Falls Church		
Department of F	Parks and Recreation	
will maintain and operate the newly installed pick-up bags and receptacles at all of their municipal parks. Informative signs will be added at appropriate locations. (IY-1 thru IY-10)	Pick-up bags and receptacles have been installed at all City of Falls Church parks, along with informative signs where appropriate. The bags are replaced as needed, usually twice a month.	
Northern Virginia Regional Commission		
will work with the watershed jurisdictions to map all sanitary sewers in the stream corridors. (IY-1)	On going.	
will investigate ways to educate private contractors in proper sewage disposal. This may include information included at licensure. (Y-2)	No action taken at this time.	
will monitor the progress of Arlington County's dog park standards evaluation and revision process and keep the other Four Mile Run jurisdictions updated on its progress. (IY-1 thru IY-10)	On going.	
will produce a map that overlays the Four Mile Run DNA Study, Municipal Parks and Trails and Dog Parks to help guide implementation efforts. The mapping will include information regarding monitoring data including DNA source tracking information as it	No action taken at this time.	

in coordination with all participating jurisdictions will revise the 1992 "Northern Virginia Regional BMP Handbook" to include information related to bacteria BMPs. (IY-1 thru IY-4)	On going. In lieu of efforts to revise the NV BMP handbook during FY2004, NVRC participated in the USACE/VADEQ LID working group to develop a technical bulletin regarding LID for the Virginia Stormwater Management Manual. Development of a revision to the NVBMP handbook is pending future VADCR guidance and regulations regarding stormwater management. as well as other local efforts in the same area.
will work with the four watershed jurisdictions to develop stormwater runoff reduction and reuse criteria for inclusion in the "Northern Virginia BMP Handbook." (IY-1 thru IY-4)	On going. In lieu of efforts to revise the NV BMP handbook during FY2004, NVRC participated in the USACE/VADEQ LID working group to develop a technical bulletin regarding LID for the Virginia Stormwater Management Manual. Development of a revision to the NVBMP handbook is pending future VADCR guidance and regulations regarding stormwater management. as well as other local efforts in the same area.
will facilitate adoption of any new state-issued Low Impact Development criteria and model ordinances. (IY-1 thru IY-10)	On going. INVRC participated in the USACE/VADEQ LID working group to develop a technical bulletin regarding LID for the Virginia Stormwater Management Manual. Development of a revision to the NVBMP handbook is pending future VADCR guidance and regulations regarding stormwater management. as well as other local efforts in the same area.
will on behalf of the Four Mile Run jurisdictions continue to monitor UV Disinfection technologies as projects are installed around the country. If at a later date these are deemed appropriate for use in the Four Mile Run watershed they will be presented for incorporation into this implementation plan. NVRC will investigate whether local universities or schools have interest in providing funds or services to explore demonstration projects within the TMDL watershed. (IY-1 thru IY-10)	On going.
will on behalf of the Four Mile Run jurisdictions continue to monitor Ozone Treatment technologies as projects are installed around the country. If at a later date these are deemed appropriate for use in the Four Mile Run watershed they will be presented for incorporation into this implementation plan. NVRC will investigate whether local universities or schools have interest in providing funds or services to explore demonstration projects within the TMDL watershed. (IY-1 thru IY-10)	On going.

Northern Virginia Regional Commission will on behalf of the Four Mile Run jurisdictions continue to monitor flocculant technologies as projects are installed around the country. If at a later date these are deemed appropriate for use in the Four Mile Run watershed they will be presented for incorporation into this implementation plan. NVRC will investigate whether local universities or schools have interest in providing funds or services to explore demonstration projects within the TMDL watershed. (IY-1 thru IY-10)	On going.
will on behalf of the Four Mile Run jurisdictions investigate the creation of a pilot project examining the use of floc-log technologies at specific outfalls in the watershed. Such locations may include areas where minimizing fecal loading may prove difficult, i.e. areas with large wildlife populations like the Ballston Beaver Pond. (IY-1 thru IY-10)	No action taken to date.
will act as a clearing house for outreach & education materials. NVRC will also orchestrate meetings annually with watershed jurisdictions to discuss implementation progress, coordinate education & outreach and maintain a focus on the IP effort. (IY-1 thru IY-10)	On going.
will coordinate a region-wide media campaign, Northem Virginia Regional Pollution-Prevention (P2) Media Strategy, to target pollution-causing behaviors, including improper dog-walking practices. Depending on the sum of locality contributions to the pollution-prevention outreach effort, the campaign's goal is to target dog walkers through the use of mass media. Media advertising will be supplemented with coordinated community outreach and corporate sponsorship campaigns, with special emphasis on Four Mile Run and other watersheds where streams are impaired for fecal coliform bacteria. (IY-1 thru IY-10)	NVRC has worked closely with Arlington County to lead the Regional Pollution Prevention (P2) Media Strategy. Work over during the year has included development of a cost sharing plan and preparations for a radio campaign in the spring 2005.
will maintain the TMDL Resource portion of the Four Mile Run website. It will be kept up to date with TMDL related efforts. (IY-1 thru IY-10)	On going.
will prepare an electronic slide show for use by volunteers to present at civic association meetings, etc. (IY-1)	No action taken to date.
will host yearly meeting to coordinate outreach efforts. (IY-1 thru IY-10)	Will hold a meeting in early 2005.

on behalf of the Four Mile Run jurisdictions will monitor the ongoing VDH effort considering signs for Four Mile Run and will request that VDH allow the environmental services departments from the Four Mile Run jurisdictions to participate in and provide input to the signage discussions. (IY-1 thru IY-5)	No action taken todate.
Virginia Department of Transportation	
will develop an Illicit Discharge Detection, Elimination, and Prohibition Program, to include mapping, inspection, reporting, and enforcement protocols. (IY-4)	
will continue to update and implement its Stormwater Program Specifications, to include coordination with local governments and watershed groups on the implementation of stormwater BMPs within the Four Mile Run Watershed. (IY-1 thru IY-10)	
will continue its street sweeping program at its current level. (IY-1 thru IY-10)	
will explore opportunities to expand its current street sweeping program by increasing the coverage and frequency or by employing enhanced sweeping techniques as they become environmentally justified and economically viable. (IY-1 thru IY-10)	
will explore opportunities to expand its current catch basin cleaning program as it becomes environmentally justified and economically viable. (IY-1 thru IY-10)	
will explore opportunities to expand its current storm sewer maintenance program as it becomes environmentally justified and economically viable. (IY-1 thru IY-10)	
will consider stream corridor stabilization in lieu of on site stormwater basins when environmentally justified and economically viable. (IY-1 thru IY-10)	

will work towards providing services, resources, and/or manpower to supplement local/regional public outreach campaigns on the impacts of stormwater runoff. (IY-1 thru IY-10)	
Northern Virginia Regional Park Authority	
will continue to provide pick-up bags and receptacle stands along the W&OD trail. NVRPA will add informative signs to those stands and consider installing additional stands. (IY-1 thru IY-10)	